Adarsh Agarwal

✉ adarshagarwal.dev@gmail.com ✆ +91 90828 75754 in adifiedio ○ adified

EXPERIENCE

Marsh & McLennan | Senior Software Developer   (July'2024 - Present)
- Designed and implemented a scalable **Microservices** based internal platform using **Golang (Gin)**, **Redis**, **PostgreSQL**, and **gRPC**, supporting real-time **ingestion & aggregation** of business-critical metrics from over **15 internal APIs**; reduced data latency by **40%** and added observability using **Prometheus & Grafana**.
- Containerized services using **Docker**, deployed via **ECR** to **AWS EKS**, integrated **auto-scaling**, centralized logging with **CloudWatch**, and proactive health checks; achieved **99.9% system uptime** and cut debugging time by **60%**, used **Rolling deployment strategy** for **zero-downtime** releases.
- Built an internal **GenAI-powered chatbot** using **Langchain**, **LangGraph**, **OpenAI APIs**, **Flask** and **MongoDB Vector Database** to query financial data from **Oracle Essbase** via natural language; deployed on **Kubernetes** using **Komodor**, reducing Smart view manual query time by **90%**.

Cuebo.ai | Backend Software Developer Intern   (May'2024)
- Built a **GenAI** backend pipeline in **Python (FastAPI)** to transcribe and translate sales calls using **Whisper AI**, **Deepgram**, and **OpenAI GPT-4**, **Google cloud platform**.
- Automated QA compliance via **LLM-based prompt engineering**, reducing manual review effort by **80%**.

Honeywell | Backend Software Developer Intern   (May'2023)
- Built scalable backend pipelines in **Python (Pandas, NumPy)** to clean, transform, and aggregate **10M+ fire incident records**; improved data readiness time by **60%** for analytics teams.
- Developed **Tableau dashboards** for leadership, to identify **B2B sales leads across 50+ U.S. regions**.

Sense Talent Labs | Backend Developer Intern   (Nov'2022)
- Developed and deployed a backend feature in **Python (Flask)** to analyze GitHub developer activity through **REST APIs**; improved response times by **35%** using caching, **Materialized View** and **indexing** on **PostgreSQL**, containerized with **Docker**, enabling data-driven engineering performance reviews across teams.

KEY PROJECTS UNDERTAKEN

Go-Bank | Backend Project in Golang ○ ↗   (Apr'2025)
- Built a production-grade banking backend in **Golang (Gin)** with **PostgreSQL**, supporting secure user auth, fund transfers, and transaction history using robust **database transactions** for data integrity. Exposed **REST + gRPC** APIs with **gRPC Gateway**; defined interfaces using **Protocol Buffers** for clean contracts.
- Designed and implemented secure authentication flows using **JWT** and **Paseto** tokens with long-lived **refresh tokens**; enforced granular **role-based access control (RBAC)**, **session expiry**, and token revocation to ensure robust user identity and authorization management across services.
- Used **pgx driver** for efficient PostgreSQL connection pooling and **SQLC** for **type-safe query** generation; Integrated **Redis + Asynq** for **Asynchronous task processing** (e.g., email dispatch), improving app responsiveness and reliability under high load; Managed schema using versioned migrations with **golang-migrate**.
- Automated testing with **Gomock + Testify**, reaching **High coverage**; Designed interactive API docs with **Swagger** for developer ease, ensured observability with **ultra fast and structured logs** using **Zerolog**.
- Containerized application using **Docker** and used **multistage build** and automated deployments via **GitHub Actions CI/CD**; pushed images to **AWS ECR** and orchestrated scalable, production-grade workloads on **Kubernetes (EKS)** with **rolling updates** and health checks.

TECHNICAL SKILLS

- **Programming Languages:** Golang (Go), Python, C++, C, HTML, SQL, Bash
- **Backend & Frameworks:** Gin, gRPC, gRPC Gatewy, Fiber, Echo, Gomock, Langchain, Gorilla/Mux
- **Cloud:** AWS (EKS, EC2, S3, ECS, ECR, SNS, SQS), Cloudfront, Kinesis, Fargate, Lambda, API Gateway
- **DevOps:** Docker, Kubernetes, Rancher, Komodor, Github Actions, CloudFormation(IaC), Elastic Beanstalk(PaaS)
- **Databases & Caching:** PostgreSQL, MongoDB, Redis, Memcached, SQLC, pgx, Aurora & RDS, DynamoDB
- **Monitoring & Other Tools:** Prometheus, Grafana, Linux, Protobuf, JWT, RabbitMQ, Kafka, Postman
- **Concepts:** Concurrency, OOP, Testing, SSH, Microservices, Asynchronous Processing, Webhook, WebSocket, REST APIs, Cloud, Containerization, Pub/Sub, Platform as a Service(PaaS), infrastructure-as-code (IaC)

EDUCATION

- Bachelor of Technology **(B.Tech)** from Indian institute of technology - Bombay **(IIT-B)**   (Mar'2024)
- Secured All India Rank **2000** in IIT-JEE Advanced exam out of **160 Thousand+** applicants   ('2020)
- Secured **99.75 Percentile %** in IIT-JEE Mains exam out of **1 Million+** applicants   ('2020)